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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,367	10/14/2004	Antonie Dijkhof	NL 020314	8678

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EXAMINER	
SUN, SCOTT C	
ART UNIT	**PAPER NUMBER**
2182	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

MN

Office Action Summary	Application No.	Applicant(s)	
	10/511,367	DIJKHOF ET AL.	
	Examiner	Art Unit	
	Scott Sun	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendments to the claims filed 9/4/2007 have been noted and entered. Previous rejections under 35 U.S.C. 101 are withdrawn.

Response to Arguments

2. Applicant's arguments filed 9/4/2007 have been fully considered but they are not persuasive. Applicant's arguments are summarized as:

a. The term "substantially" does not render the claim indefinite.

b. Prior art of record does not disclose "halting the reception of output data from the data source".

3. Regarding argument 'a', examiner notes that "substantially" renders the claim indefinite because it is unclear what range of values would be considered "substantially empty" or "substantially equal". Although applicant gives an example of the range (bytes when compared to gigabytes is substantially empty, page 5 of remarks), it still not clearly define the scope intended by the term. For example, is 80% empty considered "substantially empty"? If not, then at what exact percentage below which a buffer be considered "substantially empty"?

Furthermore, applicant's argues that one of ordinary skill would understand "substantially empty" or "substantially equal", but gives no evidence of such knowledge (e.g. defined in dictionary or discussed in other publications). Unless it can be shown that "substantially empty" and "substantially equal" are referring to a clear-defined range

(for example, within 90% of the compared value), examiner maintains that the term still renders the scope of the claim indefinite.

4. Regarding argument 'b', examiner notes that prior art of record teaches flushing of data when high threshold is exceeded to "start fresh with new packets" (Ho, column 11, line. 64 - column 12, line 3). It is implied that packet reception has to be at least temporarily halted, however brief, during flushing, otherwise there would be a constant data flow into the buffer that makes starting "fresh with new packets" impossible. Furthermore, examiner notes that halting the reception of data is a basic function of any data transferring system as they would otherwise receive data indefinitely without control.

5. Having responded to each of applicant's arguments, examiner notes that prior art of record still provide a valid ground of rejection, attached below with minor changes made in response to the amended claims.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "substantially" in claims 1 and 8 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of continuing prosecution, examiner interpreted the limitations "substantially empty" and "substantially equal" respectively as "empty" and "equal".

9. Claims 2-7, 9 and 10 are rejected because of their dependency on one or more of the above claims.

10. The following rejections are made based on the examiner's best interpretation of the claims in light of the 35 USC 112 rejections above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al (US Patent #7,170,856, hereinafter Ho) in view of Ribas-Corbera et al(Pub # US 2003/0053416, hereinafter Ribas-Corbera).

13. Regarding claim 1, Ho discloses a method (figures 11 -13) of changing an output rate of information for a buffer (jitter buffer 600 in figure 6) with a constant first output rate (a constant bit rate, column 16, lines 50-53), where the buffer receives output data

from a data source (CBR data sources 110 and 150, column 1, lines 15-20), and the output data is added to be stored in said buffer, characterized in that the method comprises the steps of:

halting the reception of output data from the data source (flushing the jitter buffer when high threshold is reached, starting fresh with new packets, column 11, lines 64-66);

outputting the stored output data of said buffer at said first output rate until said buffer is empty (column 12, lines 53-57);

stopping outputting of the content of said buffer (waiting for data to accumulate up to low threshold; column 11, lines 6-9);

resuming receiving and storing of said output data from the data source in said buffer when the buffer is substantially empty (re-accumulate data in buffer to be played when low threshold is reached; column 12, lines 51-56);

setting a second constant output rate as the output rate of said buffer (increasing or decreasing bit rate, depending on if low or high threshold was reached; column 16, lines 25-57);

Ho does not disclose explicitly outputting at second output rate when the amount of buffered data is equal to the second constant output rate times a requested buffer-time. However, Ribas-Corbera teaches commencing output of the stored content of said buffer at said second output rate, when the amount of buffered data is substantially equal to the second constant output rate times a requested buffer-time (initial buffer fullness "F" is equal to buffer delay times transmission bit rate "R"). Teachings of Ho

and Ribas-Corbera are from the same field of data buffering, and specifically multimedia data buffering, and specifically of buffer adjustment.

Therefore, it would have been obvious at the time of invention for a person of ordinary skill in the art to combine teachings of Ho and Ribas-Corbera by using the initial buffer amount calculation of Ribas-Corbera in the system of Ho for the benefit of dynamically and accurately adjusting to varying transmit conditions using relatively low bandwidth (paragraph 10, Ribas-Corbera).

14. Regarding claim 2, Ho and Ribas-Corbera combined disclose claim 1, and Ribas-Corbera further discloses wherein the data source specifies a second constant output rate and a requested buffer-time for said buffer (encoder sends data along with RBF parameters, "rate, buffer size, and initial fullness" to decoder, paragraph 8, 9).

15. Regarding claim 3, Ho and Ribas-Corbera combined disclose claim 1, and Ho further discloses wherein the resuming of said output data is initiated when the buffer is empty (column 11, lines 6-9).

16. Regarding claim 4, Ho and Ribas-Corbera combined disclose claim 1, and Ho further discloses wherein the data source is a software application adapted to receive and process input data and outputting of said output data (column 17, lines 34-36).

17. Regarding claim 5, Ho and Ribas-Corbera combined disclose claim 1, and Ho further discloses wherein the buffer is a hardware buffer (column 9, lines 48-49).

18. Regarding claim 6, Ho and Ribas-Corbera combined disclose claim 1, and Ho further discloses wherein the step of halting the reception for output data comprises discarding (flushing) said input data by said data source (column 11, lines 64-67).

19. Regarding claim 7, Ho and Ribas-Corbera combined disclose claim 1, and Ribas-Corbera further discloses wherein the input data are MPEG2 compliant elementary streams and the data source is adapted to multiplex the MPEG2 streams in to a transport stream (paragraph 2, 10).

20. Regarding claims 8-10, examiner notes that these claims are substantially similar to claims 1-4. The same grounds of rejection are applied.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Sun whose telephone number is (571) 272-2675. The examiner can normally be reached on Mon-Thu, 10:00am-8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Tsai can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

/Henry Tsai/

HENRY TSAI
SUPERVISORY PATENT EXAMINER

2/4/08